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Practitioner's Docket No. 944-001.022 **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: H. Hellsten et al.
Application No.: 09/475,359 Group No.: 2134
Filed: December 30, 1999 Examiner: Jacob Lipman
For: DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS

Mail Stop Appeal Brief—Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION—37 C.F.R. § 41.37)

NOTE: The phrase "the date on which" an "appeal was taken" in 35 U.S.C. 154(b)(1)(A)(ii) (which provides an adjustment of patent term if there is a delay on the part of the Office to respond within 4 months after an "appeal was taken") means the date on which an appeal brief under § 1.192 (and not a notice of appeal) was filed. Compliance with § 41.37 requires that: 1. the appeal brief fee (§ 41.20(b)(2)) be paid (§ 41.37(a)(2)); and 2. the appeal brief complies with §§ 41.73(c)(i)-(x). See Notice of September 18, 2000, 65 Fed. Reg. 56366, 56385-56387 (Comment 38).

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on 11/9/05.

NOTE: Appellant must file a brief under this section within two months from the date of filing the notice of appeal under § 41.31. 37 CFR 41.(a)(1). The brief is no longer required in triplicate. The former alternative time for filing a brief (within the time allowed for reply to the action from which the appeal was taken) has been removed. Appellant must file within two months from the notice of appeal. See Notice of August 12, 2004, 69 FR 49960, 49962.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*
*(When using Express Mail, the Express Mail label number is **mandatory**; Express Mail certification is optional.)*

I hereby certify that, on the date shown below, this correspondence is being:

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☒ deposited with the United States Postal Service in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

37 C.F.R. § 1.8(a)

☒ with sufficient postage as first class mail.

37 C.F.R. § 1.10 *

☐ as "Express Mail Post Office to Addressee"
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TRANSMISSION

☐ facsimile transmitted to the Patent and Trademark Office, (703) _____-_____

Date: May 15, 2006

Jack M Pasquale
Signature

JACK M PASQUALE
(type or print name of person certifying)

** Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.*

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2. STATUS OF APPLICANT

This application is on behalf of

☒ other than a small entity.

☐ a small entity.

A statement:

☐ is attached.

☐ was already filed.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. § 41.20(b)(2), the fee for filing the Appeal Brief is:

☐	small entity	$250.00
☒	other than a small entity	$500.00

Appeal Brief fee due $ 500.00

4. EXTENSION OF TERM

NOTE: 37 C.F.R. § 1.704(b) ". . .an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of three months that are taken to reply to any notice or action by the Office making any rejection, objection, argument, or other request, measuring such three-month period from the date the notice or action was mailed or given to the applicant, in which case the period of adjustment set forth in § 1.703 shall be reduced by the number of days, if any, beginning on the day after the date that is three months after the date of mailing or transmission of the Office communication notifying the applicant of the rejection, objection, argument, or other request and ending on the date the reply was filed. The period, or shortened statutory period, for reply that is set in the Office action or notice has no effect on the three-month period set forth in this paragraph."

NOTE: The time periods set forth in 37 C.F.R. § 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 C.F.R. § 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in § 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. § 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63, at 84 (Oct. 10, 1997).

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

(complete (a) or (b), as applicable)

(a) ☒ Applicant petitions for an extension of time under 37 C.F.R. § 1.136 (fees: 37 C.F.R. § 1.17(a)(1)-(5)) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
☐	one month	$ 120.00	$ 60.00
☐	two months	$ 450.00	$ 225.00
☐	three months	$ 1,020.00	$ 510.00
☒	four months	$ 1,590.00	$ 795.00
☐	five months	$ 2,160.00	$1,080.00

Fee: $1,590.00

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured, and the fee paid therefor of $_____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request $_____

or

(b) ☐ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee $ 500.00

Extension fee (if any) $ 1,590.00

TOTAL FEE DUE $ 2,090.00

6. FEE PAYMENT

☒ Attached is a ☒ check ☐ money order in the amount of $ 2,090.00

☐ Authorization is hereby made to charge the amount of $_____

☐ to Deposit Account No. _____

☐ to Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: *Credit card information should* ***not*** *be included on this form as it may become public.*

☐ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

☐ A duplicate of this paper is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, *1065 O.G. 31-33.*

☒ If any additional extension and/or fee is required,

AND/OR

☒ If any additional fee for claims is required, charge:

☒ Deposit Account No. 23-0442

☐ Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: *Credit card information should* ***not*** *be included on this form as it may become public.*

Date: May 15, 2006

Reg. No.: 31,052

Customer No.: 004955

Jack M. Pasquale

SIGNATURE OF PRACTITIONER

Jack M. Pasquale

(type or print name of practitioner)

Ware, Fressola, Van Der Sluys & Adolphson LLP

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PATENT
Attorney Docket 944-001-022

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:

H. Hellsten et al. :

Serial No. 09/475,359 : Examiner: J. Lipman

Filed: December 30, 1999 : Group Art Unit: 2134

For: DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS

Director of Patents
P.O. Box 1450
Mail Stop Appeal Brief
Alexandria, VA 20231

BRIEF FOR APPELLANT (37 CFR § 41.37)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Serial No.	**09/475,359**
Filed:	**December 30, 1999**
For:	**DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS**
Examiner:	**J. Lipman**
Group Art Unit:	**2134**

Director of Patents and Trademarks
Mail Stop Appeal Briefs - Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF OF APPELLANT (37 CFR § 41.37)

Sir:

This brief is in furtherance of the Notice of Appeal filed in this case on November 14, 2005. This is an appeal from the Final Office Action dated August 9, 2005, Paper No. 0705 rejecting claims 1-19.

I. The Real Party In Interest (37 CFR § 41.37 (c)(1)(i))

The real party in interest is Nokia Mobile Phones LTD., a corporation duly organized under the laws of Finland, and having a principal place of business in Espoo, Finland.

II. Related Appeals and Interferences (37 CFR § 41.37 (c)(1)(ii))

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

III. Status of Claims (37 CFR §1.192 (c)(1)(iii))

The status of the claims is:

Claims pending: 1-19.

Claims rejected: 1-19.

Claims withdrawn from consideration: none.

Claims allowed: none.

Claims objected to: none.

Claims being appealed: 1-19.

IV. Status of Amendments (37 CFR § 41.37 (c)(1)(iv))

An amendment was filed subsequent to the mailing date of the August 8, 2005 Final Office Action finally rejecting the claims 1-19. A Response and Request for Reconsideration of the finally rejected claims 1-19 under 37 CFR § 1.116 filed November 15, 2005 will not be entered by the Examiner upon Appeal as indicated in an Advisory Action mailed November 29,2005.

V. Summary of the Invention (37 CFR § 41.37 (c)(1)(v))

Independent Claim 1

Applicants' invention as defined in independent claim 1 is directed to an arrangement for downloading copy protected dedicated applications 40 to a user station 10 from an application source 30.

As described in the specification at page 11, line 15 through page 12, line 22, the mobile station 10 signals the server 30 via the network 20 to connect to the server 30. The server 30 in turn returns a signal to the mobile station 10 that a connection 2 is open between the mobile station 10 and the server 30 (page 11, lines 16 - 21).

The mobile station 10 next sends an order 3 for a new application and provides its (the mobile station 10) identification information in the form of an equipment identification code 12 in the order 3 (page 11, lines 21 - 25). Each user mobile station 10 equipment or hardware has a unique identification code 12. The equipment identification code 12 is that of the equipment or hardware of the specific mobile station 10 placing the order. The unique identification code 12 of the user station 10 equipment or hardware is included with the order 3 (Fig. 1, page 12, lines 25-29; Fig, 2, page 12, line 27 - 29). The unique equipment identification code 12 of the equipment or hardware of the user station 10 may be in different formats including IMEI (International Mobile Station Equipment Identity), ESN (Electronic Serial Number), SIM Subscriber Identity Module). The equipment identification code 12 identifying the equipment or hardware of the ordering station 10 is embedded in the application program during the ordering process (page 13, lines 1-5).

The server 30 then begins a dedication process 4 of the application to create a dedicated executable application 40 which executable application includes the equipment identification code 12 of the equipment or hardware of the mobile station 10 (page 11, line 29 - page 12, line 3). The dedicated executable application 40 is automatically downloaded to the mobile station 10 from the server 30 in an executable format as indicated by the reference numeral 5 (page 12, lines 3 - 10; page 13, lines 13 - 17).

The downloaded executable program will not operate on any other user station and cannot be made to operate on any other user station (page 13, line 27 - page 14, line 2). The downloaded executable program is limited or dedicated for use and operation to only the user station equipment from which the application program is ordered (page 12, lines 10 - 12; 17 - 22).

Independent Claim 9

Applicants' invention as defined in independent claim 9 is directed to an arrangement for directly automatically downloading copy protected dedicated applications 40 from a distributor 60 to a mobile station 10 from an application source without requiring contact between a user of the mobile station 10 and a manufacturer 70 of the application (Fig. 3, page 14, lines 3-7). A general template format application 35 is developed by the manufacturer 70 (page 14, lines 7-9). A template version of the application 65 includes a variable 55 (Fig. 3, lines 9-10; Fig. 4, page 14, line 28 - page 15, line1; page 15, lines 26-27) and the template version of the application 65 is sent to the distributor 60 (Fig. 3, page 14 lines9-10).

The mobile station 10 places an order 3 with the distributor 60 for a dedicated application 40 (page 14, lines 12-15) and automatically identifies itself via an identification code 12 specific to the mobile station 10 equipment or hardware (Fig. 3, page 14, lines 15-19). Each user mobile station 10 equipment or hardware has a unique identification code 12. The equipment identification code 12 is that of the equipment or hardware of the specific mobile station 10 placing the order. The unique identification code 12 of the mobile station 10 equipment or hardware is included with the order 3 (Fig. 3, lines 15-19). The unique equipment identification code 12 of the equipment or hardware of the mobile station 10 may be in different formats including IMEI (International Mobile Station Equipment Identity), ESN (Electronic Serial Number), SIM (Subscriber Identity Module) (page 13, lines 1-5).

The dedicated executable application 40 is configured to be specific to the mobile station 10 equipment or hardware identified by the equipment identification code 12 provided to the distributor during the ordering process (page 14, lines 23-27) by replacing the variable 55 in the template version of the application 65 with the equipment identification code 12 included in the order 3 (Fig. 4, page 14, line 25 - page 15, line3). Once the variable 55 in the template version of the application 65 is replaced with the equipment identification code 12 included in the order 3, the executable dedicated application 40 is automatically directly downloaded from the distributor 60 to the mobile station 10 having the equipment identification code 12 specified in the order 3 and which mobile station 10 equipment identification code 12 matches the equipment identification code 12 embedded in the configured template version of the application 65 (page 15, line3-11). The executable dedicated application 40 is ready to run on the mobile

station 10 that has the matching equipment identification code 12 when the dedicated application 40 is downloaded without further installation or action on the part of the user (page 15, lines 8-13).

Independent Claim 13

Applicants' invention as defined in independent claim 13 is directed to a system for ordering and downloading copy protected dedicated applications 40 to a mobile station 10 from an application source 30. The mobile station 10 signals a unique identification code 12 to an application source 30 when placing an order 3 to identify the equipment or hardware of the particular mobile station 10 to which the copy protected dedicated application 40 is to be downloaded to. The application source 30 is responsive to the mobile station 10 signaling the unique identification code 12 and receives and authenticates the mobile station equipment identification code 12. An application includes a manufacturer set variable and is responsive to a command that substitutes the equipment identification code 12 of the particular mobile station 10 signaled to the application source 30 in the order 3 to create a dedicated executable application that will only run on a mobile station 10 that has an equipment code 12 that matches the equipment code 12 signaled to the application source 30 in the order 3. The application is responsive to a command for sending the dedicated executable application 40 to the particular mobile station 10 identified. The application is responsive to a command for comparing and matching the equipment identification code 12 of the dedicated application 40 to the equipment identification code 12 of the particular mobile station 10 to run the downloaded dedicated executable application 40. The downloaded dedicated executable application is copy protected

by virtue of the manufacturer's application being configured to have the equipment or hardware code 12 of the particular mobile station 10 so that the application can run only on the particular mobile station 10 and not on another mobile station 10 that has a different equipment identification code 12. The dedicated application 40 is not useful even if it is somehow illegally or otherwise copied to a different mobile station because the different mobile station to which the application is copied does not and cannot have the same equipment identification code 12 of the mobile station 10 signaled in the order 3 and which signaled equipment identification code 12 is embedded in the application 40.

In other words, the copy protected dedicated application 40 can only be executed in the mobile station 10 identified by its (the mobile station) equipment identification code 12 in the original order 3. The copy protected dedicated application 40 cannot be executed on a different mobile station 10 from the mobile station 10 identified in the order 3 because the mobile station equipment identification code 12 is different than the equipment identification code 12 of the mobile station 10 specified in the order 3 even if the different mobile station 10 is operated by the same user.

The advantages of applicant's apparatus include:

1) A copy protected executable application program is prepared and configured specifically to and for the specific mobile station and no other mobile station.

2) The application program is directly downloaded to the mobile station in an executable condition to operate on the mobile station but is copy protected and dedicated to

execute only on the mobile equipment specified by the equipment identification code specified in the order for the application.

3) Also, Applicants' invention as disclosed and claimed also contemplates the application may be ordered by and from any device so long as the equipment identification code identifying the particular mobile station to which the dedicated application is to be downloaded to is provided in the order (page 17, lines 4-12) because the particular user station equipment identification code is embedded in the application when the executable application is configured.

4) A copy protected dedicated application can be accessed and downloaded but it cannot run or execute in the terminal or mobile station if the equipment identification code of the mobile station is not the same as the equipment identification code used when the dedicated application was created for the specific terminal or mobile station identified in the order (page 11, line 29 to page 12, line 3).

5) The downloaded dedicated application program is complete and ready for execution on the mobile station directly without use of a separate installer program and does not require an installer program of any type. All information necessary to execute and run the application program is present in the Applicants' downloaded executable copy protected application program.

6) Applicants' invention downloads a complete executable application program that is configured to immediately run on the specific mobile station and no other mobile station by virtue of being configured to have the equipment identification code of the specific mobile station to run only on the specific mobile station and no other mobile station because the

equipment identification code is based in the hardware of the mobile station and not software running on the mobile station which only provides an associative based identification.

VI. Grounds of Rejection to be reviewed on Appeal (37 CFR § 41.37 (c)(1)(vi))

The following three issues will be addressed in the Argument:

1) Whether the rejections under 35 U.S.C. § 112, second paragraph imposed by the Examiner should be upheld in view of the amendment to dependent claim 4 in response to the Final Office.

2) Whether the Brandenburg (U.S. Patent No. 5,894,516) cited by the Examiner renders the invention defined by independent claims 1, 9 and 13 and its dependent claims 2-16 fully anticipated under 35 U.S.C. §102(a).

3) Whether the Brandenburg (U.S. Patent No. 5,894,516) cited by the Examiner renders the invention defined by dependent claims 17-19 obvious under 35 U.S.C. § 103.

VII. Argument (37 CFR § 41.37 (c)(1)(vii))

Applicants respectfully submit the rejected independent claims 1, 9 and 13 recite new and novel subject matter not taught or suggested in the prior art. Dependent claims 2-8, 10-12 and 14-19 are believed to recite additional novel subject matter over and above that recited in independent claims 1, 9 and 13. Claims 1-8, 9-12 and 13-19 do not stand or fall together. The patentability of claims 1-8, 9-12 and 13-19 will be argued separately.

A. The Rejections Under 35 U.S.C. § 112, second paragraph

In view of the Advisory Action dated November 29, 2005, claims 1-8 and 17-19 have been finally rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully disagree with these rejections and submit the rejections should be reversed and withdrawn for the cogent reasons hereinafter set forth.

The Examiner asserts in the Final Office Action at page 2, paragraph 3, that there are two distinct and contradicting definitions for the term "unique identification information". Independent claim 1 recites, "--unique identification information in the form of an identification code of the user station equipment which identifies the particular user station equipment--" (lines 4-5). In response to the Final Office Action, dependent claim 4 is amended to recite"-- method of claim 1 ~~wherein:~~ further including the step of including the time and date of placing the order for a dedicated executable application and the time and date of downloading the dedicated executable application ~~is~~ in the unique identification information." The amendment corrects an obvious typographical error and full support for the amendment is found in the specification at page 13, lines 11-13, "The identification code may also include information stating the time and date of placing the order 3 and/or the time of delivery or downloading."

Applicants respectfully submit the Examiner is in error and should enter the amendment to dependent claim 4 and request withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

B. The Rejections Under 35 U.S.C. § 102 (a)

In view of the Advisory Action dated November 29, 2005, claims 1-16 have been finally rejected under 35 U.S.C. § 102(a) as being anticipated by Brandenburg (U.S. Patent No. 5,894,516). Applicants respectfully disagree with these rejections and submit they should be reversed for the cogent reasons hereinafter set forth.

C. The Rejections Under 35 U.S.C. S 103

In view of the Advisory Action dated November 29, 2005, claims 17-19 have been finally rejected under 35 U.S.C. § 103 as being unpatentable over Brandenburg (U.S. Patent No. 5,894,516) on the grounds of obviousness. Applicants respectfully disagree with these rejections and submit they should be reversed for the cogent reasons hereinafter set forth.

D. The Cited Reference

1. The Primary Reference - Brandenburg (U.S. Patent No. 5,894,516)

The Brandenburg patent shows a method for the satellite broadcast distribution of computer software from a software distribution center to a computer for a customer licensed or authorized to use the broadcast service. (Column 2, lines 48-49). Once authorized to use the service (presumably by subscribing to the service to be eligible to receive content) the customer receives two separate programs, a licensing program 22 and a receiver/installer program 24 and then loads the licensing and receiver/installer programs onto a computer 18. The

installer/receiver software program 24 enables the computer 18 to receive the satellite broadcast software and to install the software onto the computer 18. (Column 2, lines 60-64). Peripheral computers 20a-n are coupled to the computer 18 (Column 2, lines 38-39; Figs. 1, 2, 4). The peripheral computers 20a-n also contain the installer/receiver software (Column 2, lines 64-65).

The installer/receiver program 24 runs the licensing program 22 on the computer to generate a unique computer identifier code (computer identification number) that is associated with the computer 10 (Applicants believe the reference should be 18) (Column 2, lines 55-58). This associative identification code must be provided by the customer whenever a software package is ordered (Column 2, lines 59-60).

An encryption key is generated for each software package. The encryption key is used to encrypt the software package (Column 3, lines 1-2).

The licensing program 22 produces the identification code of the computer 18 in response to the customer selecting an option to order software. The customer then gives this identification code to the operator receiving the software order at the distribution center (Column 3, lines 30-35). Upon receipt of this identification code, the distribution center produces a new key by encrypting the software encryption key for the ordered software using the identification code produced by the license program 22 (Column 3, lines 36-40). The purpose of the encrypted encryption key is to lock broadcasted software to the computer having the license program 22 that produced the identification code to give the computer 18 permission to listen in on the satellite broadcast (Column 3, lines 41-48). The encrypted encryption key is sent by the

distribution center in a separate communication message to the user via fax or email (Column 3, lines 50-52).

The user of the computer 18 enters the new key (encrypted encryption key) provided by the distribution center in the separate communication message when requested by installer/receiver program 24 running on the computer 18 (Column 3, lines 52-57). The user tunes in to receive the satellite broadcast software at the time specified by the distribution center to receive the encrypted software. (Column 3, line 58 - Column4 line 21).

Once the satellite broadcast encrypted software is received, the licensing program 22 generates the identification code of the computer 18 which is transmitted to the receiver/installer program 24 running on the computer 18 or is generated by the receiver/installer program itself (Column 4, lines 28-33). The receiver/installer program 24 decrypts the encrypted encryption key using the identification code generated by the license program 22 on the receiver/installer program 24 (Column 4, lines 33-35).

The decrypted encryption key in turn enables the computer 18 to decrypt or unlock the satellite broadcast software, however if the encryption key is identified in the process any computer can decrypt the software. (Column 4, lines 35-41).

The computer 18 distributes the satellite broadcast software to any peripheral computer 20a-n attached to the computer 18 which peripheral computer in turn decompresses and installs the software. (Column 4, lines 54-58).

Therefore, the software is not restricted to run on one computer only.

E. The Reference Fails to Teach All the Structural Limitations of the Claimed Invention

With regard to independent claim 1, Brandenburg fails to teach, disclose or suggest **"a unique identification information in the form of an identification code of the user station equipment which identifies the particular user station equipment"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 1, Brandenburg fails to teach, disclose or suggest **"preparing a dedicated executable application that can only run on the particular user station identified by configuring a general application accessible to the application source to include the unique identification information specific to the particular user station equipment identification code"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 1, Brandenburg does not teach, disclose or suggest **"downloading the dedicated executable application from the application source directly to the particular user station identified wherein the downloaded dedicated executable application is copy protected by virtue of being configured by the application source to have the equipment identification code of the particular ordering user station to run only on the particular ordering user station and no other user station"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 9, Brandenburg does not teach, disclose or suggest **"ordering an application from the distributor including automatically identifying the user station to which the copy protected application is to be downloaded to via ~~a~~ an information code specific to the identified user station equipment identification code"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 9, Brandenburg does not teach, disclose or suggest **"automatically replacing the variable with the information code specific to the identified user station equipment identification code to make the application a dedicated executable application which is copy protected, and which dedicated executable application will only run on the a user station with a matching equipment information code"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 9, Brandenburg does not teach, disclose or suggest **"automatically downloading the dedicated executable application to the user station having said matching equipment information code"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 13, Brandenburg does not teach, disclose or suggest **"a user station that signals at least one unique identification code when placing an order wherein said unique identification code identifies the particular user station equipment to which the copy protected dedicated application is to be downloaded to"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 13, Brandenburg does not teach, disclose or suggest **"an application source responsive to the user station signaling the at least one unique identification code for receiving and checking the user station equipment identification code for authentication purposes"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 13, Brandenburg does not teach, disclose or suggest **"an application including a variable set by a manufacturer of the application responsive to a command for substituting the particular user station equipment identification code for the variable to create a dedicated executable application that will only run on a user station having the matching equipment information code"** and therefore lacks this structural limitation.

With regard to independent claim 13, Brandenburg does not teach, disclose or suggest **"a command for sending the dedicated executable application to the particular user station identified"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 13, Brandenburg does not teach, disclose or suggest **"a command for executing the dedicated application at the particular user station identified"** and is therefore deficient with respect to this structural limitation.

With regard to independent claim 13, Brandenburg does not teach, disclose or suggest **"a command for comparing and matching the user station equipment identification code of the dedicated application to the particular user station equipment identification code of the user station to run the downloaded dedicated executable application wherein the**

downloaded dedicated executable application is copy protected by virtue of the manufacturer's application being configured to have the equipment identification code of the particular user station equipment to run only on the particular user station and no other user station" and is therefore deficient with respect to this structural limitation.

Brandenburg does not teach, disclose or suggest an equipment hardware identification code. The lack of an equipment hardware identification code in Brandenburg makes it impossible to embed the ordering mobile station equipment identification code in the application program ordered from the server as required in Applicants' invention.

Brandenburg does not embed the client computer hardware identification code in the application program as Brandenburg lacks such an equipment identification code to identify the particular client computer ordering the application.

Brandenburg does not teach, disclose or suggest creating dedicated applications from a "template" application (that is, a general application) in which a unique identification information code which identifies the user station equipment is used to make the general application a dedicated application for that particular mobile station only.

Brandenburg does not teach, suggest or disclose the creation of a dedicated application using the equipment identification code of a client computer to limit the execution of the application program to only that client computer because a user in Brandenburg can access, download and execute the application program from any client computer running the license/installer/receiver program.

Applicants' invention provides a method and system wherein the copy protected dedicated application even if downloadable to a mobile station different from a mobile station placing the order would not be executable on the mobile station because of the embedded unique identification information identifying the user station placing the order and upon which the dedicated application is configured.

The Examiner argues that the unique computer identifier code (e.g. computer identification number) generated by the licensing program 22 run by the installer/receiver program 24 is somehow equivalent to Applicants' user station equipment identification code. Applicants respectfully disagree.

It is clear that Brandenburg teaches that one absolutely needs to have the licensing program software running on the computer in order to place a request order for the desired software package and must provide the license program generated identification code when placing an order for a software package (column 2, lines 55-60). Applicants' invention has no such licensing program and further does not rely on an installer/receiver program 24 as taught and required by Brandenburg.

Brandenburg's unique identification code generated by the licensing program is not and is technically impossible to be the identification code of the user station equipment as is taught, disclosed and claimed in Applicants' invention. Applicants' user station equipment identification code is a hardware code and therefore cannot be present in two user stations to identify each. In contrast, Brandenburg's licensing program can run on any computer. Likewise, Brandenburg's downloaded application program can run on multiple computers at the same time.

Brandenburg relies on encryption keys and provides an encryption key for example via fax or email which is then entered onto the target computer to allow the target computer to receive the software product which will only run on the target computer having the licensing program due to the encryption key. The Examiner takes the position that the new key, the "encrypted encryption key" is to lock a particular computer, "the computer with the identification code generated by the licensing program used to encrypt the encryption key" to a particular software package (column 3, lines 41-54). Therefore, Brandenburg creates a separate encryption key and uses this encryption key to unlock the software package. In contrast, Applicants' dedicated executable application is not encrypted and is downloaded directly from the application source to the mobile station identified by its equipment identification code.

Neither Brandenburg nor the Examiner explain how the software licensing program interacts with the computer hardware to extract an equipment identification code and therefore this structural element is lacking and cannot be inferred nor would one skilled in the art make such an inference. In contrast in Applicants' invention, the unique identification information is in the form of an identification code of the user station equipment.

Brandenburg encrypts the encryption key specific to the ordered software package using the identification number generated by the licensing program running on the computer 18 to produce a new key by encrypting the software encryption key for the ordered software packaging using the identification code generated by the licensing program running on the computer 18. The purpose of the encrypted encryption key is to lock the computer with the identification code used to encrypt the encryption key to the particular software package (column 3, lines 36-46).

There is no teaching, suggestion or disclosure in Brandenburg that "the dedicated executable application is prepared by configuring a general application accessible to the application source to include the unique identification information specific to the particular user station equipment identification code" as disclosed and claimed in Applicants' invention. There is no fair basis nor would one skilled in that art look to an encrypted encryption key as the user station equipment identification code as suggested by the Examiner.

Applicants further submit one skilled in the art would not look to a satellite broadcast software distribution system that utilizes multiple licensing/installer/receiver programs, multiple encryptions, separate communications for transmitting required decryption keys and broadcast listening for a teaching on direct downloading to a mobile station of an executable application configured to operate only on the mobile station having a hardware based equipment identification code.

F. Dependent Claims

Claims 2-8 depend directly or indirectly from independent claim 1. Applicants submit these claims are distinguishable over Brandenburg for lacking an essential feature as discussed above in connection with the parent claim and further for limitations clearly set forth therein.

Claims 10-12 are dependent directly or indirectly on independent claim 9. Applicants submit these claims are distinguishable over Brandenburg for lacking an essential feature as discussed above in connection with the parent claim and further for limitations clearly set forth therein.

Claims 14-16 are dependent directly or indirectly on independent claim 13. Applicants submit these claims are distinguishable over Brandenburg for lacking an essential feature as discussed above in connection with the parent claim and further for limitations clearly set forth therein.

Claims 17-19 are rejected under 35 U.S.C. §103(a) as being anticipated by Brandenburg U.S. Patent 5,894,516. The Examiner takes official notice that IMEI, ESN and SIM are well known unique identifications existing in computers. Applicants respectfully disagree with the Examiner's conclusion.

IEMI and SIM are not computer related component items, they are wireless mobile phone components. Applicants include a portion of Newton's Telecom Dictionary 16th Expanded and Updated Edition in the Evidence Appendix. IMEI (International Mobile Station Equipment Identity) is defined as a wireless telecommunications term, an equipment identification number similar to a serial number used to identify a mobile station. The term SIM (Subscriber Identity Module) is defined as a smart card installed or inserted into a mobile telephone containing all subscriber related data. As well know and understood by those skilled in the art, these components are hardware based components each having a unique identification code as part of the component itself.

Accordingly, the user station equipment identification code as disclosed and claimed is technically distinguishable and performs a different function that the identification code generated by the licensing program in Brandenburg and there is no fair basis for asserting that the licensing program identification is equivalent to Applicants' equipment identification code.

Claims 17-19 depend directly from independent claim 1. Applicants submit these claims are distinguishable over Brandenburg for similar limitations in addition to the limitations set forth therein.

G. General Legal Aspects of Anticipation Rejections

The basic legal premise involved in this case is a single reference must teach all the structural limitations of the claimed invention, *ex parte Masham*, 2 USPQ2d 1647 (1987) as the basis for a rejection under 35 USC § 102(b). Even if the reference prior art device performs all the functions recited in the claim as asserted by the Examiner, the prior art cannot anticipate the claim if there is any structural difference, *In re Robertson*, 49 USPQ2d 1949 (Fed. Cir. 1999). It is well settled a single prior art reference anticipates a patent claim if it expressly or inherently describes each and every limitation set forth in the patent claim. *Verdegaal Bros., Inc., v. Union Oil Co.*, 2 USPQ2d 1051 (Fed. Cir. 1987). Inherent anticipation requires that the missing descriptive material is "necessarily present," not merely, probably or possibly present, in the prior art. *Trintec Industries, Inc. v. Top-U.S.A. Corp.* 63 USPQ2d 1597, CAFC 2002.

With respect to pending claims 1-16 in this application, the Examiner has not shown each and every structural limitation of the claimed invention are present in the Brandenburg reference. This is due in large part to the fact the reference operates in a different field of endeavor and aims to solve a different problem unrelated to the Applicants' invention.

H. General Legal Aspects of Obviousness Rejections

The basic legal premise involved in this case is that a claimed invention is unpatentable under 35 U.S.C. § 103(a) only if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. Whether an invention is obvious or not is a legal conclusion which depends upon an underlying factual inquiry. The factual inquiry requires looking at: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 14, 148 USPQ 459, 465 (1966). Thus, to properly reject claims in an application under Section 103, it is well-established law that the Examiner, acting on behalf of the U.S. Patent and Trademark Office (PTO), must show an unrebutted *prima facie* case of obviousness using the factual inquiry articulated in *Graham*. *In re Dembiczak*, 50 USPQ 2d 1614, 1616 (Fed. Cir. 1999).

The analysis regarding whether an invention is obvious to one of ordinary skill in the art begins in the text of §103, with the phrase "at the time the invention was made." *In re Dembiczak*. This phrase in the statute guards against entry into the "tempting but forbidden zone of hindsight," when measuring claims under § 103. *In re Dembiczak* at 1616, citing *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 873, 228 USPQ 90, 98 (Fed. Cir. 1985). Measuring a claimed invention against the standard established by § 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in

the art, guided only by the prior art references and the then-accepted wisdom in the field. *In re Dembiczak* at 1616 citing *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 UPSQ 303, 313 (Fed. Cir. 1983). Close adherence to the above described methodology is critical in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *In re Dembiczak* at 1617, citing *W.L. Gore & Assoc.* at 313. The decisional law articulated by the Court of Appeals for the Federal Circuit makes it clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. *In re Dembiczak* at 1617, citing *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ 2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ 2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically...the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate

any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also *Graham*, 383 U.S. at 18, 148 USPQ at 467 ("strict observance" of factual predicates to obviousness conclusion is required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. *In re Dembiczak* at 1617 citing *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.").

The Court of Appeals for the Federal Circuit has noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. *In re Dembiczak*, referring to *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ 2d 1626, 1630 (Fed. Cir. 1996), *Para-Ordinance Mfg. v. SGS Imports Intern., Inc.*, 73 F.3d 1085, 1088, 37 USPQ 2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references." *In re Rouffet*, 149 F.3d at 1355, 47 USPQ 2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. *In re Dembiczak* at 1617. The showing must be clear and particular. *In re Dembicizak* at 1617 citing *C.R. Bard*, 157 F.3d at 1352, 48 USPQ 2d at 1232. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *In re Dembicizak* at 1617.

Thus, an applicant can overcome a rejection by showing that there is insufficient evidence of *prima facie* obviousness. *In re Rouffet* at 1455. In the absence of a proper *prima facie* case, an applicant who complies with the other statutory requirements is entitled to a patent. *Id.*

With respect to the pending claims 17-19 in this application, the Examiner has not made out a *prima facie* case that the subject matter of such claims is obvious. This is due in large part to the fact that the prior art references do not teach or suggest all the claim limitations.

Accordingly, when the *Graham* factors are considered, the rejection is clearly in error with respect to the pending claims 17-19. In sum, the showing or teachings of the references must be clear and particular, *In re Dembicizak* at 1617 citing *C.R. Bard*, 157 F.3d at 1352, 48 USPQ 2d at 1232. Broad conclusory statements drawn from the narrow, specific teaching of one of the references, standing alone, are not "evidence." *In re Dembicizak* at 1617.

It is respectfully submitted that the only way that the Examiner could have made the conclusion that the claimed subject matter was obvious in view of the *Brandenburg reference* was with the benefit of hindsight reconstruction using the Applicants' own teachings as a blueprint for the rejection. The law is well established that this is not a proper basis for rejecting a claimed invention. See *In re Rouffet* at 1457.

It is only when the examiner looks to applicants' own disclosure that he can allege obviousness by choosing bits and pieces of the prior art references and then combining these bits and pieces together based on alleged obviousness. Without a teaching (other than applicants' own teaching) to prompt the combinations/modifications, the rejection is merely improper

hindsight reconstruction of applicants' own invention using applicants' own disclosure. Thus, it is not seen how the claimed method and system can be derived from these prior art references, alone or in combination, as they simply do not teach or suggest what is set out in the applicants' claims and do not provide the basis for developing the invention to persons having ordinary skill in the art to which the subject matter pertains. Accordingly, the Examiner's reliance on this prior art reference is not properly grounded and the rejections based thereon should be withdrawn.

It is respectfully submitted that the reasoning of the Final Action does not point to some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the teaching of *Brandenburg* in the manner presently proposed by the Examiner.

VIII. Conclusion

In summary, it is submitted that each of the rejections is a classic hindsight reconstruction of Applicant's invention using its own disclosure. It is submitted that essential features and structural limitations of Applications' invention are not found in the Brandenburg U.S. Patent No. 5,894,516 reference. It is also submitted that the artisan of ordinary skill would not be motivated to take the teachings of the Brandenburg U.S. Patent No. 5,894,516 reference, even if the ordinarily skilled artisan had such a motivation, the combinations proposed by the Examiner still fall far short of the present invention. Hence, the subject rejections should be reversed.

In view of the above, it is respectfully submitted that the Examiner's rejections are in error and should be reversed.

Respectfully submitted,

Dated: May 15, 2006

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IX. CLAIMS APPENDIX (37 CFR § 41.37 (c)(1)(viii))

1. (Previously presented) A method of downloading copy protected dedicated applications to a user station from an application source comprising the steps of:

a) sending an order from a user station for an application to an application source, the order comprising at least a unique identification information in the form of an identification code of the user station equipment which identifies the particular user station equipment which the copy protected dedicated application is to be downloaded to and which identifies the user of the user station to the application source;

b) upon identification of the particular user station equipment by the application source, preparing a dedicated executable application that can only run on the particular user station identified by configuring a general application accessible to the application source to include the unique identification information specific to the particular user station equipment identification code; and

c) downloading the dedicated executable application from the application source directly to the particular user station identified wherein the downloaded dedicated executable application is copy protected by virtue of being configured by the application source to have the equipment identification code of the particular ordering user station to run only on the particular ordering user station and no other user station.

2. (Previously presented) The method of claim 1 including the further step of:

comparing the unique identification information in the order sent to the application source to identify the user station to the application source by using a library of identification information accessible to the application source for authentication purposes.

3. (Previously presented) The method of claim 1 wherein:

before the step of downloading occurs, the steps occur of: saving the dedicated executable application to a location accessible by the particular user station identified and informing the particular user station identified that the dedicated executable application

configured to the particular user station identified is ready to be downloaded to the particular user station identified from the location.

4. (Currently amended) The method of claim 1 ~~wherein:~~ further including the step of including the time and date of placing the order for a dedicated executable application and the time and date of downloading the dedicated executable application ~~is~~ in the unique identification information.

5. (Original) The method of claim 1 wherein:
the dedicated application is a setup application.

6. (Previously presented) The method of claim 1 wherein:
the step of identifying identifies the user station for billing purposes.

7. (Previously presented) The method of claim 1 wherein:
the steps of sending the order, and downloading the dedicated executable application, occur via a wireless network.

8. (Previously presented) The method of claim 3 wherein:
the identification information is checked by the user station every time the dedicated executable application is run.

9. (Currently amended) A method of directly automatically downloading copy protected applications from a distributor to a user station from an application source without requiring contact between a user of the user station and a manufacturer of the application comprising the steps of:

a) the manufacturer sending a template version of an application from a manufacturer to a distributor, the template version including a variable of known value;

b) ordering an application from the distributor including automatically identifying the user station to which the copy protected application is to be downloaded to via ~~a~~ an information code specific to the identified user station equipment identification code;

c) upon placing the order, automatically replacing the variable with the information code specific to the identified user station equipment identification code to make the application a dedicated executable application which is copy protected, and which dedicated executable application will only run on the a user station with a matching equipment information code; and

d) automatically downloading the dedicated executable application to the user station having said matching equipment information code wherein the downloaded dedicated executable application is copy protected by virtue of the template version being configured by the distributor to have the equipment identification code of the identified user station to run only on the identified user station and no other user station.

10. (Original) The method of claim 9 wherein:
replacing the variable is performed by a binary patch method.

11. (Previously presented) The method of claim 9 wherein:
the steps are performed over a wireless network.

12. (Previously presented) The method of claim 9 wherein:
the step of ordering includes automatically checking the information code specific to the identified user station equipment identification code against a library of authorization codes accessible to the distributor.

13. (Previously presented) A system for ordering and downloading copy protected dedicated applications to a user station from an application source, the system comprising:

a) a user station that signals at least one unique identification code when placing an order wherein said unique identification code identifies the particular user station equipment to which the copy protected dedicated application is to be downloaded to;

b) an application source responsive to the user station signaling the at least one unique identification code for receiving and checking the user station equipment identification code for authentication purposes;

c) an application including a variable set by a manufacturer of the application, said application responsive to: (a) a command for substituting the particular user station equipment identification code for the variable to create a dedicated executable application that will only run on a user station having the matching equipment information code, (b) to a command for sending the dedicated executable application to the particular user station identified, (c) to a command for executing the dedicated application at the particular user station identified, and (d) to a command for comparing and matching the user station equipment identification code of the dedicated application to the particular user station equipment identification code of the user station to run the downloaded dedicated executable application wherein the downloaded dedicated executable application is copy protected by virtue of the manufacturer's application being configured to have the equipment identification code of the particular user station equipment to run only on the particular user station and no other user station.

14. (Previously presented) The system of claim 13 further comprising:

a library of user station equipment identification codes accessible to the particular user station for providing comparison data to the particular user station when the particular user station checks the unique identification code signaled from the user station to the application source for authorization purposes.

15. (Previously presented) The system of claim 13 wherein the dedicated application has the additional feature of:

whenever the dedicated application is executed the unique identification code is checked.

16. (Previously presented) The system of claim 13 wherein:
the application source is located remotely from the manufacturer of the application.

17. (Previously presented) The method as defined in claim 1 wherein the identification code of the user station equipment is an IMEI (International Mobile Station Equipment Identity) code.

18. (Previously presented) The method as defined in claim 1 wherein the identification code of the user station equipment is an ESN (Electronic Serial Number) code.

19. (Previously presented) The method as defined in claim 1 wherein the identification code of the user station equipment is a SIM (Subscriber Identity Module) code.

X. EVIDENCE APPENDIX (37 CFR § 41.37 (c)(1)(ix))

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IMAS Intelligent Maintenance Administration System. Northern Telecom software which is a menu-driven PC-based program that provides enhanced maintenance and administrative capabilities for DMS-10 central offices.

IMASS Intelligent Multiple Access Spectrum Sharing. A method of automatically determining the presence of existing private operational fixed microwave (OFM) systems in areas near base stations, and avoiding the use of frequencies for the PCS or cellular base station which might cause unacceptable interference. Instead the PCS or cellular systems will use frequencies in each area, which are not being used by nearby OFM (operational fixed microwave) systems. Techniques such as are helpful to PCS service providers coexisting with the incumbent OFM systems, until they can be relocated to different frequencies according to the FCC rules.

iMIP iCalendar Message based Interoperability Protocol. See iCalendar.

IMC See Internet Mail Consortium.

IMEI International Mobile station Equipment Identity. A wireless telecommunications term. An equipment identification number, similar to a serial number, used to identify a mobile station.

IMHO Abbreviation for "In My Humble Opinion;" commonly used on E-mail, on the Internet and BBSs (Bulletin Board Systems).

Immediate Ringing A PBX feature which makes the called telephone begin ringing the instant the phone has been dialed. Normally there's a small wait between dialing the number and having the phone ring.

Immunity From Suit A term I first saw in licensing agreements with Microsoft. The provision says that the company signing the agreement with Microsoft agrees not to sue Microsoft or Microsoft's customers and OEMs for infringement of said company's own patents. Some observers are claiming that signing an agreement with this provision would give Microsoft a royalty-free license to an outside company's patents.

IMNSHO In My Not So Humble Opinion. An acronym used in electronic mail on the Internet to save words or to be hip, or whatever. See IMHO.

IMO Abbreviation for "In My Opinion;" commonly used on E-mail and BBSs (Bulletin Board Systems). See IMHO.

IMP September 2, 1969 Professor Leonard Kleinrock births the Internet, with the installation of ARPAnet's first Interface Message Processor (IMP) in his lab at the University of California at Los Angeles. IMPs were packet-switching minicomputers, pre-Cisco routers, developed at Bolt, Bernanek and Newman (BBN) in Cambridge, Massachusetts. BBN was later merged into GTE, which then got merged into Bell Atlantic. Professor Kleinrock was the lead architect of the ARPAnet — the Defense Department's Advanced Research Projects Agency Network.

IMPACS An MCI International packets switching service that is useful to firms with overseas remote computing needs, and to scientific, educational or commercial organizations that need periodic access to U.S. database facilities. IMPACS also provides overseas users with communications links to their own computers in the USA for applications such as order entry, inventory control, billing, payroll, and sales statistics.

Impact Strength A test designed to ascertain the abuse a cable configuration can absorb, without physical or electrical breakdown. Done by impacting with a given weight, dropped from a given height, in a controlled environment.

Impact Tool Also called a "punch down" tool. See Punch Down Tool.

Impaired Condition that occurs when an individual circuit exceeds the transmission limits of its signaling function (e.g., seizure, disconnect, ANI) and failures occurs.

IMPDU Initial MAC Protocol Data Unit. A Connectionless Broadband Data Service (CBDS) term that corresponds to the L3 PDU in Switched Multimegabit Data Service (SMDS). CBDS is the European equivalent of SMDS.

Impedance The total opposition, or resistance to flow, of electrical current in a circuit. Impedance is the term used in non-direct current (i.e., Alternating Current, or AC) applications, while resistance is used in DC (Direct Current) applications. The unit of measurement of impedance is ohms. The lower the ohmic value, the better the quality of the conductor in terms of dimensions as gauge (i.e., thickness of the conductor), and anomalies (e.g., consistency of gauge and nicks in the conductor). Low impedance will help provide safety and fire protection and a reduction in the severity of common and normal mode electrical noise and transient voltages. For telecommunications, impedance varies at different frequencies. Ohm's law says that voltage equals the product of current and impedance at any single frequency. See also Resistance.

Impedance Matching The connection of additional impedance to existing impedance one in order to improve the performance of an electrical circuit. Impedance Matching is done to minimize distortion, especially to data circuits.

Implementors' Agreement An agreement about the specifics of implementing as a standard, reached by vendors who are developing products for the standard. Compare with De Facto Standard and De Jure.

Implied Acknowledgment Implied acknowledgment is a process whereby negative acknowledgment of a specific packet of information implies that all previously transmitted packets have been received correctly. See also Pipelining.

Import Imagine you have a software program, like a spreadsheet or a database. And you have information in that program. Let's say it's Microsoft Word or Lotus 123. And you want to get it into a different program, say to give it to a workmate who uses WordPerfect or Excel. You have to convert it from one format to another. From Word to WordPerfect or from Lotus to Excel. That process is typically called "exporting" and the process of your workmate getting it into his computer is called "importing." And you'll typically see the words "EXPORT" and "IMPORT" as choices on one of your menus.

Import Computers A Windows NT. In directory replication, the servers or workstations that receive copies of the master set of directories from an export server.

Import Script First read my definition of IMPORT. An import script is a series of specifications which control the merging processes. It contains a series of merge rules which specify how the fields are to be merged and a record precedence rule which governs which records to merge of the ones received.

Important Call Waiting Notifies you with a special ring that someone you want to hear from is calling you.

Improved Definition Television IDTV. Television that includes improvements to the standard NTSC television system, which improvements remain within the general parameters of NTSC television emission standards. These improvements may be made at the transmitter and/or receiver and may include enhancements in parameters such as encoding, digital filtering, scan interpolation, interlaced scan lines, and ghost cancellation. Such improvements must permit the signal to be transmitted and received in the historical 4:3 aspect ratio.

Improved Mobile Telephone Service IMTS. In the beginning, there was dispatch mobile service. The base oper-

• The West Coast orientation to Japan.
The above information courtesy of Electronics, Computers and Telephone Switching by Robert J. Chapuis and Amos E Joel, Jr. See also Silicon Bayou, Silicon Forest, Silicon Mudflats, Silicorn Valley and Sillywood.

Silicon Valley North The Ottawa area is called Silicon Valley North by the local high-tech press. Local high-tech companies include Nortel Networks, Newbridge Networks, ObjectTime, Corel, Mitel, JDS Uniphase (formerly JDS Fitel) and Cognos. Others with with presence here include Cisco, Compaq and Siemens.

Silicorn Valley A region in the state of Iowa that is fostering high-tech development. See also Silicon Bayou, Silicon Forest, Silicon Mudflats, Silicon Valley and Sillywood.

Silly Code See CLLI Code.

Silly Valley A silly term for Silicon Valley in California.

Sillywood The convergence of Silicon Valley and Hollywood.

SILS A Standard being formulated for Interoperating LAN Security.

Silver Satin Once upon a time, phones came with cords that matched the color of the phone. This proved expensive and confusing to workers, who were color blind, who had to match the cord with the phone. So a manufacturer (we think it was AT&T) decided that the time was ripe for all phones to have a cord that matched every decor and every phone. In actuality, the color they settled upon — silver satin — matches no decor man or woman has ever created and certainly no phone has ever been produced in the silver satin color. However, the world is now stuck with every phone coming with one standard, ugly line cord, called silver satin. See also Touchtone.

SIM 1. Subscriber Identity Module. A 'smart' card installed or inserted into a mobile telephone containing all subscriber-related data. This facilitates a telephone call from any valid mobile telephone since the subscriber data is used to complete the call rather than the telephone internal serial number. See GSM and SIM Card for a better description.
2.Single Interface Module (SIM). An NEC term. - The minimum equipment configuration for the NEAX2400 IMS is the Single Interface Module. The SIM, says NEC, is a fully featured, totally non-blocking digital switch capable of supporting all NEAX2400 IMS feature package application programs. Typical stations installed range from only a few to 300 lines.

SIM Card Subscriber Identity Module, also called Smart Cards. Every mobile phone that conforms to the GSM (global system for mobile communications) and including many PCS (personal communications services) handsets has something called a SIM card. GSM phones won't work without these cards. Each SIM card contains a microchip that houses a microprocessor with eight kilobytes of memory. The card stores a mathematical algorithm that encrypts voice and data transmissions and makes it nearly impossible to listen in on calls. The SIM card also identifies the caller to the mobile network as being a legitimate caller. PCS and GSM cards come in two basic varieties. Some handsets work with slot-in SIM cards that are the size of conventional credit cards. Others come with smaller cards already built into the handset. GSM is the standard mobile service for Europe and Australia and most countries outside the U.S. Some PCS operators in the U.S. have adopted the GSM standard. See GSM.

SIMD Single Instruction Multiple Data is a type of parallel processing computer, which includes dozens of processors. Each processor runs the same instructions but on different data and one chip provides central coordination. See also MIMD and MMX.

SIMM Single In-line Memory Module. Used on Macs and PCs. A form of circuit board that holds a number of silicon chips. The connectors (i.e., leads, or pins) are attached to a stiff contact strip that permits a SIMM to be inserted into a slot like an expansion adapter. On PCs, SIMM-style RAM chips have virtually replaced the dual in-line package (DIP) chips, identifiable by two rows of protruding legs, that were popular in the 1980s. The most common SIMM is the 30-pin, 9-bit wide "1 by 9", which is the standard memory upgrade for PCs. See also DIP, PGA, SIMM Socket, and SIP.

SIMM Socket The connector inside the Macintosh that holds the SIMM and connects it to the rest of the computer electronically.

Simple English What the SEC said that financial documents should be written in. Simple English is what normal people are meant to be able to read. This means that lawyers, who write most of these documents, are meant to speak. Good luck, SEC.

Simple Gateway Control Protocol SGCP is a protocol and an architecture that Bellcore has created to address the concept of a network that would combine voice and data on a single packet switched Internet Protocol (IP) network. SGCP largely operates at low level — level 2 in the OSI. So it will probably be combined with higher level concepts such as IPDC (IP Device Control) and MGCP (Media Gateway Control Protocol). According to Bellcore, the philosophy behind the Simple Gateway Control Protocol (SGCP) is that the network is dumb, the "endpoint" is simple, and services are provided by intelligent Call Agents, and not in the trunking gateway (TGW) or in the residential gateway (RGW). SGCP is simple to use and easy to program, according to Bellcore, but is powerful enough to support basic telephony services and enhanced telephony services like call waiting, call transfer, and conferencing. The protocol is also flexible enough to support future IP telephony services. The SGCP, according to Bellcore, is a simple UDP-based protocol, instead of TCP-based, that allows support for managing endpoints and the connections between the endpoints. The SGCP is scalable, has support for failovers, and processes information in real-time. There is a low CPU requirement and low memory requirement for the endpoint because the SGCP is handling a small set of simple transactions at a time. This means that the endpoint can then be mass-produced cheaply. And there is no need for expensive and resource-hungry parsers. The system is text-based, has an extensible protocol, and the connection descriptions are based on SDP. When new services are introduced by the call agent, there is no need to change or update the endpoint. SGCP controls the endpoint by hooking transactions, relying on DTMF input, and by playing tones. For full details see www.bellcore.com/SGCP/SGCPWhitePaper.rtf

Simple Mail Transfer Protocol SMTP. The TCP/IP protocol governing electronic mail transmissions and receptions. An application-level protocol which runs over TCP/IP, supporting text-oriented e-mail between devices supporting Message Handling Service (MHS). Multipurpose Internet Mail Extension (MIME) is a SMTP extension supporting compound mail, which is integrated mail, including perhaps e-mail, image, voice and video mail.

Simple MAPI Simple MAPI is a subset of MAPI that lets developers easily create "mail-aware" applications capable of exchanging messages and data files with other network clients.

Simple Network Managemen
The protocol governing network manage
of network devices and their functions. S
TCP/IP environment.

Simple Network Paging Proto
Simplegram A Versit term. A syn
vCard in a clear-text encoding. Simple
based on the ASCII, 7-bit character set.

Simplex 1. Operating a channel in o
no ability to operate in the other direct
side of a telephone conversation is all th
a Simplex line.
2. One-sided printing.

Simplex Loop Powering In T-1,
of the digital signal pairs that are simp
Ring) and that may have voltage app
required 60 mA dc current to control re
ation, loopbacks, keep alive signals and

SIMTEL20 The White Sands Missile R
a giant collection of free and low-cost
which was "mirrored" to numerous c
Internet. In the fall of 1993, the Air For
ter things to do than maintain a free sof
it down.

Simulcast To broadcast simultaneo
channels (paths).

Simultaneous Peripheral Ope
SPOOL. Temporarily storing program
magnetic tape or in RAM for later outp
PCs use a small software spooling pr
material to be printed very quickly, sto
RAM, then feeds that material to the p
printer can handle. See Spooling.

Simulator A program in which a math
sents an external system or process. For
can simulate the forces that act on a bui
quake to find out how much damage is

Simulation A technique, often invo
guess the outcome of various events in t
titudes of complex events interact, simu
only way to deal with a given problem
used in traffic engineering instead of
proven formula. Many people believe t
NEVER be used when standard, prove
Poisson, Erlang B and Erlang C) are app
ly with simulation is actually finding out
then programming them correctly. Once
time, even on a fast computer, to run
tions to get a stable statistical estimate;
lation, like a single roll of the dice, is
Simulators were built into hardware t
behavior of AT&T's No. 5 Crossbar swit
oped in the late 1940s; 1ESS behavio
software in the 1960s. These were m
many people and several years, but the
far beyond the capabilities of standard
Sin In ancient Rome, eating the flesh
considered a sin.

Sin Tax A tax imposed by sincere p
that might remotely be fun. In the 197
legislature proposed the enactment of a
of sexual intercourse. Concerns abou
finally caused the legislature, in its ir
aside the idea.